FORMULA #15341

Topical antifungal formulations proven to permeate the nail

Fungal nail infections (onychomycosis) cause brittleness, discoloration and thickening. Onychomycosis affects up to one in seven adults in North America[1], may cause pain and impair quality of life if untreated. Topical formulations target the infection directly, but limited drug permeation through the nail often limits the treatment efficacy.

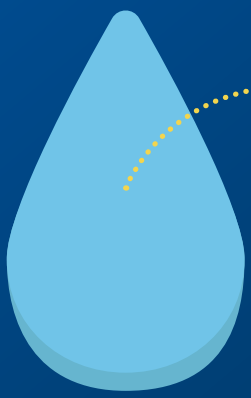
PCCA EctoSeal P2G™ is a unique powder-to-gel compounding base providing:

- **easy application and removal** of the gel
- **targeted delivery** of active pharmaceutical ingredients (APIs) into and through the nail
- **protective barrier** via a self-drying, film-forming gel

Proven results: study evaluating the **permeation** of topical antifungal formulations

Nail clippings from **five volunteers** were exposed to three test formulations:

fluconazole 2% / ibuprofen 2% in a **dimethyl sulfoxide (DMSO) nail solution**



fluconazole 2% in **PCCA EctoSeal P2G**

fluconazole 2% / ibuprofen 2% in **PCCA EctoSeal P2G**

Similar permeation in both formulations with **PCCA EctoSeal P2G**; ibuprofen **did not interfere** with the uptake of fluconazole.

Quantitative evaluation of **permeated fluconazole** showed:

56%

higher concentration in the nail bed when applied with **PCCA EctoSeal P2G** vs the **DMSO solution**

Benefits

For patients

Easy-to-use, film-forming gel that adheres to the nail while delivering topical medication

For pharmacists

Innovative topical compounding base proven to improve delivery of antifungal agents

For physicians

Evidence-backed topical option for onychomycosis delivering superior penetration when compared to the standard DMSO nail solution

[1] Ghannoum M.A., et al (2000) A large-scale North American study of fungal isolates from nails: the frequency of onychomycosis, fungal distribution, and antifungal susceptibility patterns. *J Am Acad Dermatol.*;43(4):641-648. [Also cited in this 2021 Onychomycosis: Rapid Evidence Review]

Scan the QR code to access the full study.

For more information about the study contact: PCCAScience@pccarx.com.

PCCA EctoSeal P2G